

(1) a metal alloy substrate;

(2) [a thin,] an [intermetallic] intermediate coating of nickel aluminide, [diffused] diffusion bonded into the [surfaces] top surface of said substrate to form a coating about 1.2 to 1.4 mils in thickness;

(3) [a thin] a layer of a reflective germanium containing, silver metal coating about 0.5 mils thick superimposed on and bonded to said [intermetallic] intermediate coating; and

(4) a germanium containing, glass-ceramic, protective overlay coating about 2.0 mils thick superimposed on and bonded to said silver reflective coating.

Cancel claims 2, 3 and 4 without prejudice or disclaimer of the subject matter thereof.

#### REMARKS

Reconsideration of this application is courteously solicited. The specification has been amended to correct obvious typographical errors as well as to identify the U.S. Patent referred to on pages 5 and 12. Claim 1 has been rewritten to more particularly set forth the applicant's inventive concept. The limitation of claims 2, 3 and 4, all of which have been cancelled are not set forth in claim 1. As a result of the present amendment, it is believed that claim 1, the only claim now remaining under consideration, defines an invention which is clearly patentable over the references of record.

At this time, claim 1 stands rejected under 35 U.S.C. 103 as being unpatentable over Langley (U.S. Patent No. 3,176, 679) in view of Apfel et al. The Langley patent discloses a solar energy collector comprising (1) a metal alloy substrate; (2) a receiver layer not in excess of 2000 Å thickness and composed of a glass-gold composition which may or may not include germanium oxide; (3) a barrier layer 1000 to 2000 Å thick and composed of alumina, silica or cesium oxide; and (4) an optically thin interference layer of a refractory material about 0.1 to 0.4 microns in thickness.

The Apfel et al patent discloses an infrared interference filter having a glass substrate, a precoat layer on the substrate with a thickness of 5 to 25 Å composed of nickel, chromium, rhodium or various metal oxides and a layer or two layers of silver deposited on the precoat layer.

The Examiner argues that it would not amount to invention to add the top silver layer of Apfel et al as an intermediate layer between the diffusion layer and the receiver layer of Langley. However, the Langley patent discloses a solar energy collector and the addition of a silver reflecting layer would completely mitigate the usefulness of Langley's device making it inoperative. Not only is the suggestion that the silver layer of Apfel et al be added to Langley an improper combination of teachings; but, the gist of the Langley invention is completely opposite to that of Apfel et al and,

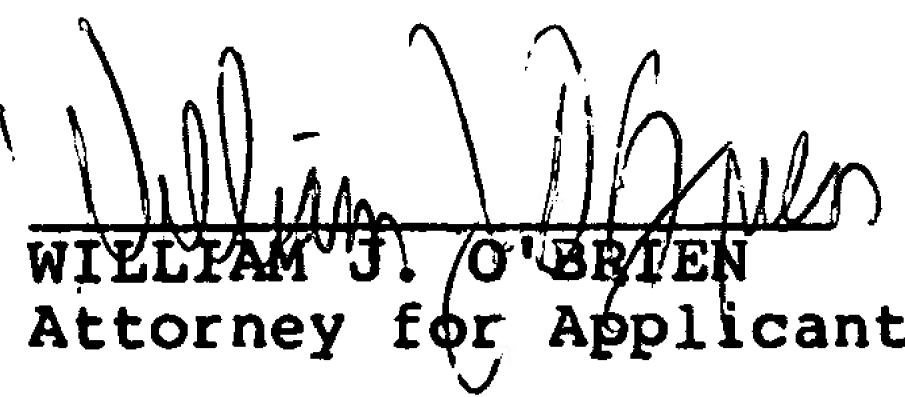
DECLASSIFIED BY ORIGINATING AGENCY  
it suggests there would be no suggestion that their respective teachings could be combined. Furthermore, neither of the references disclose layers having the thickness limitations defined by the claim of this application, nor would it seem likely that one skilled in the art would seek out a teaching that employs a top silver layer and rely on this teaching as suggestive that the top silver layer could be interposed as an intermediate layer.

In view of the arguments set forth above, it is submitted that the claim of this application clearly distinguishes the teachings of Langley or Apfel et al, whether said teachings are considered alone or in combination. Accordingly, an early and favorable response by the Examiner is earnestly solicited.

In accordance with Section 714.01 of the M.P.E.P., the following information is presented in the event that a call may be deemed desirable by the Examiner: William J. O'Brien, A/C 617-861-4073.

Respectfully submitted,

  
JOSEPH E. RUSZ  
Attorney for Applicant

  
WILLIAM J. O'BRIEN  
Attorney for Applicant